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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,456	02/20/2001	Hwan-Seong Yu	8733.394.00	5029

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EXAMINER

CHOWDHURY, TARIFUR RASHID

ART UNIT PAPER NUMBER

2871

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicant N .

09/785,456

Applicant(s)

YU, HWAN-SEONG

Examiner

Tarifur R Chowdhury

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 November 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (AAPA) in view of Toshio et al., (Toshio), JP 2-210402.**

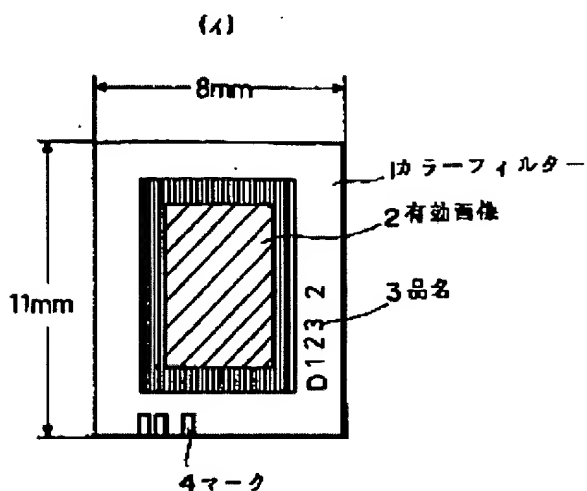
3. The AAPA described in the present application discloses in pages 3-4 and shows in Fig. 2, a color filter substrate for use in a liquid crystal display device comprising:

- a substrate;
- a black matrix (33) having a pattern on the substrate;
- red, green and blue color filters (35) corresponding to the pattern; and
- an alignment key (37) at the periphery of the substrate.

The AAPA differs from the claimed invention because it does not disclose the identification mark being formed at the periphery of the substrate.

Toshio discloses color filters with identification mark. Toshio also discloses that by providing identifiable codes/marks in the non-effective image areas of the filters (applicant's periphery of the substrate), it is possible to eliminate the generation of defects and identification errors in the identification work (abstract; Fig. 4).

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Toshio is evidence that ordinary workers in the art of liquid crystal would find a reason, suggestion or motivation to employ an identification mark at the periphery of the substrate.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the color filter substrate of the AAPA such that employing a identification mark so that the generation of defects and identification errors in the identification work is eliminated, as per the teachings of Toshio.

The AAPA described in page 3, lines 6-9 also disclose the use of a transparent conductive layer over the color filter.

Further, since the method of manufacturing the color filter substrate is merely a list of forming each component and each component must be formed to make the device, the method of manufacturing would be inherent to the device.

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Accordingly, claims 1, 10, 11, 13, 14, 16, 17, 26, 27 and 29 would have been obvious.

As to claims 2-4, 18-20 and 31-33, the AAPA described in the present application discloses in page 4, lines 5-11 that the black matrix (33) includes chrome or chrome and chrome oxide double layer or resin having carbon.

As to claims 5-7 and 21-23, Toshio shows in Fig. 4 that the identification mark includes a sign and a character wherein the character includes an alphabet and a number.

As to claims 8, 9, 24, 25, 34 and 35, using the identification mark for storing information such as manufacturer, color filter type, fabrication method and black matrix type is within the level of ordinary skill in the art and thus would have been obvious to optimize the usage of the identification mark.

As to claims 12 and 28, using an overcoat between the transparent conductive layer and the color filter is common and known for several reasons such as to protect the color filter from any contamination and thus would have been obvious.

As to claims 15 and 30, forming the identification mark adjacent the alignment key is considered as design choice and thus would have been obvious.

Response to Amendment

4. It is acknowledged and appreciated that applicant has amended the Title

Response to Arguments

5. Applicant's arguments filed on 11/27/02 have been fully considered but they are not persuasive.

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a) In response to applicant's argument that Toshio et al., may teach a color filter with an identification mark, but the reference does not teach "the black matrix" and "the identification mark" as recited in claims 1, 13, 16 and 27, and thus Toshio et al., fails to cure the deficiencies of the admitted prior art, it is respectfully pointed out to applicant that the primary reference, applicant's admitted prior art (AAPA) discloses a pattern of black matrix and Toshio was used to find a teaching for having an identification mark at a periphery of the substrate not to find a teaching for using a pattern of black matrix. Therefore, In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Further, for the sake of applicant's argument, it is respectfully pointed out to applicant that Toshio et al., indeed discloses the black matrix being formed at the periphery of the substrate (col. 4, lines 1-2). As a matter of fact Toshio et al., discloses that light shielding layer is formed along with the color filter and as shown in Fig. 4, the color filter (1) is formed at the periphery of the substrate. Therefore, it is clear that the black matrix (not shown in Fig. 4 of Toshio) has a pattern on the substrate and an identification mark (shown in Fig. 4) corresponding to the pattern of the black matrix is formed at a periphery of the substrate.

Therefore, the rejection was proper and thus maintained.

Conclusion

6. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on (703) 305-4842. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7005 for regular communications and (703) 308-7724 for After Final communications.

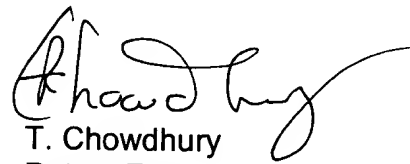
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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

TRC
January 13, 2003



T. Chowdhury
Patent Examiner
Technology Center 2800